

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5CY

Other means of identification:

ECO-SOL MAX3, ESL5-CY

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

Hazard statements: -

Supplemental Hazard information (EU): -

Precautionary statements: -

#### 2.3. Other hazards

Adverse physicochemical effects:

This material is combustible, but will not ignite readily.

Adverse human health effects and symptoms:

No known significant effects or critical hazards.

Adverse environmental effects:

No known significant effects or critical hazards.


Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

**Other adverse effects:**  
No known significant effects or critical hazards.

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  <b>Warning</b> H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**General information:**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Following inhalation:**

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

**In case of skin contact:**

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

**After eye contact:**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion:**

Do NOT induce vomiting. Consult physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

**Unsuitable extinguishing media:**

High power water jet

#### 5.2. Special hazards arising from the substance or mixture

No data available

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### 5.4. Additional information

No data available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

**Personal precautions:**

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 6.1.2. For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

**For cleaning up:**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
 Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

### 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

Use only in well-ventilated areas.  
 Handle and open container with care.  
 All work processes must always be designed so that the following is as low as possible:  
 Inhalation, Skin contact, Eye contact  
 When using do not eat, drink, smoke, sniff.

**Fire prevent measures:**

Keep away from sources of ignition. - No smoking.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:**

Keep container tightly closed in a cool, well-ventilated place.

**Requirements for storage rooms and vessels:**

Keep only in original container.  
 Conditions to avoid: Protect from sunlight.  
 Protect against: Frost, Heat

**Hints on storage assembly:**

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

**Recommendation:**

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

No data available

#### 8.1.2. biological limit values

No data available

#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper CAS No.: 147-14-8	4 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

## 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** blue

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

### 9.2. Other information

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Frost, Heat

### 10.5. Incompatible materials

Oxidising agent, strong.

Strong acid

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD <sub>50</sub> oral: >29,000 mg/kg (Rat) LD <sub>50</sub> dermal: >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 12.3. Bioaccumulative potential

**Partition coefficient: n-octanol/water:**

No data available

**Accumulation / Evaluation:**

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—
147-14-8	29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	—

There are no data available on the mixture itself.

### 12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

**Waste code product:**

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

### Waste treatment options

**Appropriate disposal / Product:**

Dispose of waste according to applicable legislation.

**Appropriate disposal / Package:**

Handle contaminated packages in the same way as the substance itself.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

<b>14.1. UN-No.</b>	not relevant
<b>14.2. UN proper shipping name</b>	not relevant
<b>14.3. Transport hazard class(es)</b>	not relevant
<b>14.4. Packing group</b>	not relevant
<b>14.5. Environmental hazards</b>	not relevant
<b>14.6. Special precautions for user</b>	not relevant

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

**Additional information:**

No dangerous good in sense of these transport regulations.

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU legislation**

No data available

**15.1.2. National regulations**

 **[DE] National regulations**

**Restrictions of occupation**

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

**Water hazard class (WGK)**

**WGK:**

keine Angabe

**Source:**

Self-classification

**15.2. Chemical Safety Assessment**

Chemical safety assessments for substances in this mixture were not carried out.

**15.3. Additional information**

No data available

**SECTION 16: Other information**

**16.1. Indication of changes**

-

**16.2. Abbreviations and acronyms**

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

**16.3. Key literature references and sources for data**

No data available

**16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]**

**Classification according to Regulation (EC) No 1272/2008 [CLP]:**

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

**16.5. Relevant R-, H- and EUH-phrases (Number and full text)**

**Hazard statements**

H319	Causes serious eye irritation.
------	--------------------------------

**16.6. Training advice**

No data available

**Revision date:** 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

### **16.7. Additional information**

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226



Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5MG

Other means of identification:

ECO-SOL MAX3, ESL5-MG

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

This material is combustible, but will not ignite readily.

**Adverse human health effects and symptoms:**

No known significant effects or critical hazards.

**Adverse environmental effects:**

No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015


**Other adverse effects:**

No known significant effects or critical hazards.

**SECTION 3: Composition / information on ingredients**

**3.2. Mixtures**

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  <b>Warning</b> H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

**SECTION 4: First aid measures**

**4.1. Description of first aid measures**

**General information:**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Following inhalation:**

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

**In case of skin contact:**

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

**After eye contact:**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion:**

Do NOT induce vomiting. Consult physician immediately.

**4.2. Most important symptoms and effects, both acute and delayed**

No data available

**4.3. Indication of any immediate medical attention and special treatment needed**

No data available

**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

**Unsuitable extinguishing media:**

High power water jet

**5.2. Special hazards arising from the substance or mixture**

No data available

**5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing.

**5.4. Additional information**

No data available

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**6.1.1. For non-emergency personnel**

**Personal precautions:**

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 6.1.2. For emergency responders

#### Personal protection equipment:

Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

#### For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

##### Advices on safe handling:

Use only in well-ventilated areas.

Handle and open container with care.

All work processes must always be designed so that the following is as low as possible:

Inhalation, Skin contact, Eye contact

When using do not eat, drink, smoke, sniff.

##### Fire prevent measures:

Keep away from sources of ignition. - No smoking.

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels:

Keep only in original container.

Conditions to avoid: Protect from sunlight.

Protect against: Frost, Heat

#### Hints on storage assembly:

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

#### Recommendation:

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

No data available

#### 8.1.2. biological limit values

No data available

#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

## 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** red

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

### 9.2. Other information

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Frost, Heat

### 10.5. Incompatible materials

Oxidising agent, strong.

Strong acid

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD <sub>50</sub> oral: >29,000 mg/kg (Rat) LD <sub>50</sub> dermal: >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 12.3. Bioaccumulative potential

**Partition coefficient: n-octanol/water:**

No data available

**Accumulation / Evaluation:**

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—

There are no data available on the mixture itself.

### 12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

**Waste code product:**

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

### Waste treatment options

**Appropriate disposal / Product:**

Dispose of waste according to applicable legislation.

**Appropriate disposal / Package:**

Handle contaminated packages in the same way as the substance itself.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

<b>14.1. UN-No.</b>	not relevant
<b>14.2. UN proper shipping name</b>	not relevant
<b>14.3. Transport hazard class(es)</b>	not relevant
<b>14.4. Packing group</b>	not relevant
<b>14.5. Environmental hazards</b>	not relevant
<b>14.6. Special precautions for user</b>	not relevant

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

**Additional information:**

No dangerous good in sense of these transport regulations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU legislation

No data available

#### 15.1.2. National regulations

##### [DE] National regulations

#### Restrictions of occupation

§ 5 MuSchRiV  
§ 22 JArbSchG  
§ 4 MuSchRiV

#### Water hazard class (WGK)

##### WGK:

keine Angabe

##### Source:

Self-classification

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### 15.3. Additional information

No data available

## SECTION 16: Other information

### 16.1. Indication of changes

-

### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

### 16.3. Key literature references and sources for data

No data available

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

#### Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

#### Hazard statements

H319	Causes serious eye irritation.
------	--------------------------------

### 16.6. Training advice

No data available

**Revision date:** 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

### **16.7. Additional information**

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226



Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5YE

Other means of identification:

ECO-SOL MAX3, ESL5-5YE

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

This material is combustible, but will not ignite readily.

**Adverse human health effects and symptoms:**

No known significant effects or critical hazards.

**Adverse environmental effects:**

No known significant effects or critical hazards.


Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

**Other adverse effects:**  
No known significant effects or critical hazards.

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

**Hazardous ingredients / Hazardous impurities / Stabilisers:**

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  <b>Warning</b> H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**General information:**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

**Following inhalation:**

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

**In case of skin contact:**

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

**After eye contact:**

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

**After ingestion:**

Do NOT induce vomiting. Consult physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media:**

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

**Unsuitable extinguishing media:**

High power water jet

#### 5.2. Special hazards arising from the substance or mixture

No data available

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### 5.4. Additional information

No data available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

**Personal precautions:**

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 6.1.2. For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

**For cleaning up:**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
 Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

### 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

Use only in well-ventilated areas.  
 Handle and open container with care.  
 All work processes must always be designed so that the following is as low as possible:  
 Inhalation, Skin contact, Eye contact  
 When using do not eat, drink, smoke, sniff.

**Fire prevent measures:**

Keep away from sources of ignition. - No smoking.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:**

Keep container tightly closed in a cool, well-ventilated place.

**Requirements for storage rooms and vessels:**

Keep only in original container.  
 Conditions to avoid: Protect from sunlight.  
 Protect against: Frost, Heat

**Hints on storage assembly:**

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

**Recommendation:**

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

No data available

#### 8.1.2. biological limit values

No data available

#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

## 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** yellow

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

### 9.2. Other information

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Frost, Heat

### 10.5. Incompatible materials

Oxidising agent, strong.

Strong acid

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD <sub>50</sub> oral: >29,000 mg/kg (Rat) LD <sub>50</sub> dermal: >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 12.3. Bioaccumulative potential

**Partition coefficient: n-octanol/water:**

No data available

**Accumulation / Evaluation:**

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—

There are no data available on the mixture itself.

### 12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

**Waste code product:**

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

### Waste treatment options

**Appropriate disposal / Product:**

Dispose of waste according to applicable legislation.

**Appropriate disposal / Package:**

Handle contaminated packages in the same way as the substance itself.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

<b>14.1. UN-No.</b>	not relevant
<b>14.2. UN proper shipping name</b>	not relevant
<b>14.3. Transport hazard class(es)</b>	not relevant
<b>14.4. Packing group</b>	not relevant
<b>14.5. Environmental hazards</b>	not relevant
<b>14.6. Special precautions for user</b>	not relevant

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

**Additional information:**

No dangerous good in sense of these transport regulations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU legislation

No data available

#### 15.1.2. National regulations

##### [DE] National regulations

#### Restrictions of occupation

§ 5 MuSchRiV  
§ 22 JArbSchG  
§ 4 MuSchRiV

#### Water hazard class (WGK)

##### WGK:

keine Angabe

##### Source:

Self-classification

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### 15.3. Additional information

No data available

## SECTION 16: Other information

### 16.1. Indication of changes

-

### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

### 16.3. Key literature references and sources for data

No data available

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

#### Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

#### Hazard statements

H319	Causes serious eye irritation.
------	--------------------------------

### 16.6. Training advice

No data available

**Revision date:** 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

### **16.7. Additional information**

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226



Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-BK

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

This material is combustible, but will not ignite readily.

**Adverse human health effects and symptoms:**

No known significant effects or critical hazards.

**Adverse environmental effects:**

No known significant effects or critical hazards.

**Other adverse effects:**


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

##### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  <b>Warning</b> H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

##### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

##### After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

##### After ingestion:

Do NOT induce vomiting. Consult physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media:

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

##### Unsuitable extinguishing media:

High power water jet

#### 5.2. Special hazards arising from the substance or mixture

##### Hazardous combustion products:

In case of fire: Gases/vapours, toxic

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### 5.4. Additional information

No data available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

##### Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 6.1.2. For emergency responders

#### Personal protection equipment:

Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

### 6.3. Methods and material for containment and cleaning up

#### For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
 Treat the recovered material as prescribed in the section on waste disposal.

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

##### Advices on safe handling:

Use only in well-ventilated areas.  
 Handle and open container with care.  
 All work processes must always be designed so that the following is as low as possible:  
 Inhalation, Skin contact, Eye contact  
 When using do not eat, drink, smoke, sniff.

##### Fire prevent measures:

Keep away from sources of ignition. - No smoking.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels:

Keep only in original container.  
 Conditions to avoid: Protect from sunlight.  
 Protect against: Frost, Heat

#### Hints on storage assembly:

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

#### Recommendation:

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
VLA (FR)	Carbon black CAS No.: 1333-86-4	① 3.5 mg/m <sup>3</sup>

#### 8.1.2. biological limit values

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)
Carbon black CAS No.: 1333-86-4	2 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

## 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** black

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

parameter		at °C	Method	Remark
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Frost, Heat

### 10.5. Incompatible materials

Oxidising agent, strong.  
 Strong acid

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	<b>LD<sub>50</sub> oral:</b> >29,000 mg/kg (Rat) <b>LD<sub>50</sub> dermal:</b> >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

#### Partition coefficient: n-octanol/water:

No data available

#### Accumulation / Evaluation:

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—
1333-86-4	Carbon black	—

There are no data available on the mixture itself.

### 12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

#### Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

### Waste treatment options

#### Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

#### Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

### 14.1. UN-No.

not relevant

### 14.2. UN proper shipping name

not relevant

### 14.3. Transport hazard class(es)

not relevant

### 14.4. Packing group

not relevant

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

#### 14.5. Environmental hazards

not relevant

#### 14.6. Special precautions for user

not relevant

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

#### Additional information:

No dangerous good in sense of these transport regulations.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU legislation

No data available

##### 15.1.2. National regulations



[DE] National regulations

#### Restrictions of occupation

§ 5 MuSchRiV

§ 22 JArbSchG

§ 4 MuSchRiV

#### Water hazard class (WGK)

##### WGK:

keine Angabe

##### Source:

Self-classification

#### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### 15.3. Additional information

No data available

### SECTION 16: Other information

#### 16.1. Indication of changes

-

#### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

#### 16.3. Key literature references and sources for data

No data available

#### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

##### Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

##### Hazard statements

H319	Causes serious eye irritation.
------	--------------------------------

#### 16.6. Training advice

No data available

**Revision date:** 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

### **16.7. Additional information**

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226



Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5LC

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

This material is combustible, but will not ignite readily.

**Adverse human health effects and symptoms:**

No known significant effects or critical hazards.

**Adverse environmental effects:**

No known significant effects or critical hazards.

**Other adverse effects:**


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

##### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  <b>Warning</b> H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

##### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

##### After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

##### After ingestion:

Do NOT induce vomiting. Consult physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media:

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

##### Unsuitable extinguishing media:

High power water jet

#### 5.2. Special hazards arising from the substance or mixture

No data available

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### 5.4. Additional information

No data available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

##### Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

##### 6.1.2. For emergency responders

##### Personal protection equipment:

Personal protection equipment: see section 8

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

## 6.3. Methods and material for containment and cleaning up

### For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
 Treat the recovered material as prescribed in the section on waste disposal.

## 6.4. Reference to other sections

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

## 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

#### Advices on safe handling:

Use only in well-ventilated areas.  
 Handle and open container with care.  
 All work processes must always be designed so that the following is as low as possible:  
 Inhalation, Skin contact, Eye contact  
 When using do not eat, drink, smoke, sniff.

#### Fire prevent measures:

Keep away from sources of ignition. - No smoking.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels:

Keep only in original container.  
 Conditions to avoid: Protect from sunlight.  
 Protect against: Frost, Heat

#### Hints on storage assembly:

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

#### Recommendation:

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

No data available

#### 8.1.2. biological limit values

No data available

#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)
29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper CAS No.: 147-14-8	4 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaustion at critical locations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.  
 In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.  
 By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)  
 Suitable material: Butyl caoutchouc (butyl rubber)  
 Breakthrough times and swelling properties of the material must be taken into consideration.  
 For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.  
 General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

### 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** blue

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

## 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

## 10.4. Conditions to avoid

Frost, Heat

## 10.5. Incompatible materials

Oxidising agent, strong.  
Strong acid

## 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD <sub>50</sub> oral: >29,000 mg/kg (Rat) LD <sub>50</sub> dermal: >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

#### Partition coefficient: n-octanol/water:

No data available

#### Accumulation / Evaluation:

There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

#### 12.4. Mobility in soil

There are no data available on the mixture itself.

#### 12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—
147-14-8	29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32 copper	—

Es sind keine Daten für die Mischung verfügbar.

#### 12.6. Other adverse effects

Further ecological information: There are no data available on the mixture itself.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

##### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

##### Waste code product:

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

#### Waste treatment options

##### Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

##### Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

#### 13.2. Additional information

No data available

### SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

<b>14.1. UN-No.</b>	not relevant
<b>14.2. UN proper shipping name</b>	not relevant
<b>14.3. Transport hazard class(es)</b>	not relevant
<b>14.4. Packing group</b>	not relevant
<b>14.5. Environmental hazards</b>	not relevant
<b>14.6. Special precautions for user</b>	not relevant

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

##### Additional information:

No dangerous good in sense of these transport regulations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU legislation

No data available

#### 15.1.2. National regulations

##### [DE] National regulations

#### Restrictions of occupation

§ 5 MuSchRiV  
§ 22 JArbSchG  
§ 4 MuSchRiV

#### Water hazard class (WGK)

##### WGK:

keine Angabe

##### Source:

Self-classification

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### 15.3. Additional information

No data available

## SECTION 16: Other information

### 16.1. Indication of changes

-

### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

### 16.3. Key literature references and sources for data

No data available

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

#### Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

#### Hazard statements

H319	Causes serious eye irritation.
------	--------------------------------

### 16.6. Training advice

No data available

**Revision date:** 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

### **16.7. Additional information**

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226



Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5LM

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against: Do not use for private purposes (household).

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +49 228 19240 (Giftnotruf Bonn) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

This material is combustible, but will not ignite readily.

**Adverse human health effects and symptoms:**

No known significant effects or critical hazards.

**Adverse environmental effects:**

No known significant effects or critical hazards.

**Other adverse effects:**


No known significant effects or critical hazards.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

##### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  Warning H319	< 10 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

##### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

##### After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

##### After ingestion:

Do NOT induce vomiting. Consult physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media:

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

##### Unsuitable extinguishing media:

High power water jet

#### 5.2. Special hazards arising from the substance or mixture

No data available

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### 5.4. Additional information

No data available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

###### Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

##### 6.1.2. For emergency responders

###### Personal protection equipment:

Personal protection equipment: see section 8

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

## 6.3. Methods and material for containment and cleaning up

### For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
 Treat the recovered material as prescribed in the section on waste disposal.

## 6.4. Reference to other sections

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

## 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

#### Advices on safe handling:

Use only in well-ventilated areas.  
 Handle and open container with care.  
 All work processes must always be designed so that the following is as low as possible:  
 Inhalation, Skin contact, Eye contact  
 When using do not eat, drink, smoke, sniff.

#### Fire prevent measures:

Keep away from sources of ignition. - No smoking.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels:

Keep only in original container.  
 Conditions to avoid: Protect from sunlight.  
 Protect against: Frost, Heat

#### Hints on storage assembly:

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

#### Recommendation:

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

No data available

#### 8.1.2. biological limit values

No data available

#### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.  
 In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.  
 By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)  
 Suitable material: Butyl caoutchouc (butyl rubber)  
 Breakthrough times and swelling properties of the material must be taken into consideration.  
 For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.  
 General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

### 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** red

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>No data available</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>No data available</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>No data available</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>No data available</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

### 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

## 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

## 10.4. Conditions to avoid

Frost, Heat

## 10.5. Incompatible materials

Oxidising agent, strong.  
Strong acid

## 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	LD <sub>50</sub> oral: >29,000 mg/kg (Rat) LD <sub>50</sub> dermal: >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

#### Partition coefficient: n-octanol/water:

No data available

#### Accumulation / Evaluation:

There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

**12.4. Mobility in soil**

There are no data available on the mixture itself.

**12.5. Results of PBT and vPvB assessment**

CAS No.	Substance name	Results of PBT and vPvB assessment
	Nicht eingestufte Stoffe	—
108-32-7	propylene carbonate	—

There are no data available on the mixture itself.

**12.6. Other adverse effects**

Further ecological information: There are no data available on the mixture itself.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Consult the appropriate local waste disposal expert about waste disposal.  
 The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.  
 Control report for waste code/ waste marking according to EAKV:

**13.1.1. Product/Packaging disposal**

Waste codes/waste designations according to EWC/AVV

**Waste code product:**

08 03 18	waste printing toner other than those mentioned in 08 03 17
----------	---

**Waste treatment options**

**Appropriate disposal / Product:**

Dispose of waste according to applicable legislation.

**Appropriate disposal / Package:**

Handle contaminated packages in the same way as the substance itself.

**13.2. Additional information**

No data available

**SECTION 14: Transport information**

No dangerous good in sense of these transport regulations.

<b>14.1. UN-No.</b>	not relevant
<b>14.2. UN proper shipping name</b>	not relevant
<b>14.3. Transport hazard class(es)</b>	not relevant
<b>14.4. Packing group</b>	not relevant
<b>14.5. Environmental hazards</b>	not relevant
<b>14.6. Special precautions for user</b>	not relevant

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

not relevant

**Additional information:**

No dangerous good in sense of these transport regulations.

**SECTION 15: Regulatory information**

**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

**15.1.1. EU legislation**

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 15.1.2. National regulations

#### [DE] National regulations

#### Restrictions of occupation

§ 5 MuSchRiV  
§ 22 JArbSchG  
§ 4 MuSchRiV

#### Water hazard class (WGK)

#### WGK:

keine Angabe

#### Source:

Self-classification

### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

### 15.3. Additional information

No data available

## SECTION 16: Other information

### 16.1. Indication of changes

-

### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

### 16.3. Key literature references and sources for data

No data available

### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

#### Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

### 16.6. Training advice

No data available

### 16.7. Additional information

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

ECO-SOL MAX3, ESL5-5LK

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Identified uses: Inkjet Printing

for professional use only

Uses advised against -

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL) , +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008 [CLP]:**

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

This material is combustible, but will not ignite readily.

**Adverse human health effects and symptoms:**

No known significant effects or critical hazards.

**Adverse environmental effects:**

No known significant effects or critical hazards.

**Other adverse effects:**

No known significant effects or critical hazards.




Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

##### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CL P]	Concentration
CAS No.: 108-32-7 EC No.: 203-572-1	propylene carbonate Eye Irrit. 2  <b>Warning</b> H319	5 - 10 Wt %

Full text of H- and EUH-phrases: see section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

##### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

##### Following inhalation:

Provide fresh air.

In case of irregular breathing or respiratory arrest provide artificial respiration.

Consult physician immediately.

##### In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off contaminated clothing and wash it before reuse. In case of skin irritation, consult a physician.

##### After eye contact:

In case of contact with eyes, rinse immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Subsequently consult an ophthalmologist.

##### After ingestion:

Do NOT induce vomiting. Consult physician immediately.

#### 4.2. Most important symptoms and effects, both acute and delayed

No data available

#### 4.3. Indication of any immediate medical attention and special treatment needed

No data available

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

##### Suitable extinguishing media:

Carbon dioxide (CO<sub>2</sub>), Dry extinguishing powder, Foam

##### Unsuitable extinguishing media:

High power water jet

#### 5.2. Special hazards arising from the substance or mixture

No data available

#### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

#### 5.4. Additional information

No data available

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

##### Personal precautions:

Wear personal protection equipment.

See protective measures under point 7 and 8.

Provide adequate ventilation.

##### 6.1.2. For emergency responders

##### Personal protection equipment:

Personal protection equipment: see section 8

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

## 6.3. Methods and material for containment and cleaning up

### For cleaning up:

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).  
 Treat the recovered material as prescribed in the section on waste disposal.

## 6.4. Reference to other sections

Safe handling: see section 7  
 Personal protection equipment: see section 8  
 Disposal: see section 13

## 6.5. Additional information

No data available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Protective measures

#### Advices on safe handling:

Use only in well-ventilated areas.  
 Handle and open container with care.  
 All work processes must always be designed so that the following is as low as possible:  
 Inhalation, Skin contact, Eye contact  
 When using do not eat, drink, smoke, sniff.

#### Fire prevent measures:

Keep away from sources of ignition. - No smoking.  
 Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place.

#### Requirements for storage rooms and vessels:

Keep only in original container.  
 Conditions to avoid: Protect from sunlight.  
 Protect against: Frost, Heat

#### Hints on storage assembly:

Do not store together with: Oxidising agent

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

#### Recommendation:

Inkjet Printing

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
VLA (FR)	Carbon black CAS No.: 1333-86-4	① 3.5 mg/m <sup>3</sup>

#### 8.1.2. biological limit values

No data available

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
propylene carbonate CAS No.: 108-32-7	70.56 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)
Carbon black CAS No.: 1333-86-4	2 mg/m <sup>3</sup>	① DNEL worker ② DNEL long-term inhalative (systemic)

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

### 8.2.2. Personal protection equipment

#### Eye/face protection:

Eye protection: not required.

In case of increased risk, additionally Eye glasses with side protection

#### Skin protection:

Hand protection: Hand protection: not required.

By long-term hand contact: Tested protective gloves must be worn (DIN EN 374)

Suitable material: Butyl caoutchouc (butyl rubber)

Breakthrough times and swelling properties of the material must be taken into consideration.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Respiratory protection:

Respiratory protection necessary at: insufficient ventilation, insufficient exhaust.

#### Other protection measures:

Body protection: not required.

General health and safety measures: Thorough skin-cleansing after handling the product. Wash contaminated clothing prior to re-use. Avoid contact with skin, eyes and clothes.

### 8.2.3. Environmental exposure controls

Discharge into the environment must be avoided.

## 8.3. Additional information

No data available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

#### Appearance

**Physical state:** liquid

**Colour:** black

**Odour:** characteristic

**Odour threshold:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>No data available</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	65 - 67 °C			
Evaporation rate	<i>not determined</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	1.8 - 14.3 Vol-%			
Vapour pressure	<i>not determined</i>			
Vapour density	> 1			
Density	0.9 - 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	easily soluble			
Partition coefficient: n-octanol/water	<i>not determined</i>			

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

parameter		at °C	Method	Remark
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>No data available</i>	40 °C		

## 9.2. Other information

No data available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

### 10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

### 10.4. Conditions to avoid

Frost, Heat

### 10.5. Incompatible materials

Oxidising agent, strong.  
 Strong acid

### 10.6. Hazardous decomposition products

No known hazardous decomposition products.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
108-32-7	propylene carbonate	<b>LD<sub>50</sub> oral:</b> >29,000 mg/kg (Rat) <b>LD<sub>50</sub> dermal:</b> >2,000 ml/kg (Rat)

#### Acute oral toxicity:

There are no data available on the mixture itself.

#### Acute dermal toxicity:

There are no data available on the mixture itself.

#### Acute inhalation toxicity:

There are no data available on the mixture itself.

#### Skin corrosion/irritation:

There are no data available on the mixture itself.

#### Eye damage/irritation:

There are no data available on the mixture itself.

#### Respiratory or skin sensitisation:

There are no data available on the mixture itself.

#### Germ cell mutagenicity:

There are no data available on the mixture itself.

#### Carcinogenicity:

There are no data available on the mixture itself.

#### Reproductive toxicity:

There are no data available on the mixture itself.

#### STOT-single exposure:

There are no data available on the mixture itself.

#### STOT-repeated exposure:

There are no data available on the mixture itself.

#### Aspiration hazard:

There are no data available on the mixture itself.

#### Additional information:

Observations relevant to classification: There are no data available on the mixture itself.

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Aquatic toxicity:

There are no data available on the mixture itself.

### 12.2. Persistence and degradability

#### Additional information:

Further ecological information: There are no data available on the mixture itself.

### 12.3. Bioaccumulative potential

#### Accumulation / Evaluation:

There are no data available on the mixture itself.

### 12.4. Mobility in soil

There are no data available on the mixture itself.

### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

### 12.6. Other adverse effects

No data available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Consult the appropriate local waste disposal expert about waste disposal.

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Control report for waste code/ waste marking according to EAKV:

#### 13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

#### Waste code product:

08 03 17 *	waste printing toner containing dangerous substances
------------	--

\*: Evidence for disposal must be provided.

#### Waste treatment options

##### Appropriate disposal / Product:

Dispose of waste according to applicable legislation.

##### Appropriate disposal / Package:

Handle contaminated packages in the same way as the substance itself.

### 13.2. Additional information

No data available

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

### 14.1. UN-No.

not relevant

### 14.2. UN proper shipping name

not relevant

### 14.3. Transport hazard class(es)

not relevant

### 14.4. Packing group

not relevant

### 14.5. Environmental hazards

not relevant

### 14.6. Special precautions for user

not relevant

Revision date: 21-Sep-2015 Version: 2.1 Print date: 21-Sep-2015

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

**Additional information:**

No dangerous good in sense of these transport regulations.

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU legislation

No data available

##### 15.1.2. National regulations

###### [DE] National regulations

##### Restrictions of occupation

§ 5 MuSchRiV  
§ 22 JArbSchG  
§ 4 MuSchRiV

##### Water hazard class (WGK)

**WGK:**

1 - schwach wassergefährdend

**Source:**

Self-classification

#### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### 15.3. Additional information

No data available

### SECTION 16: Other information

#### 16.1. Indication of changes

-

#### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

#### 16.3. Key literature references and sources for data

No data available

#### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

**Classification according to Regulation (EC) No 1272/2008 [CLP]:**

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

Hazard statements	
H319	Causes serious eye irritation.

#### 16.6. Training advice

No data available

**Revision date:** 21-Sep-2015 **Version:** 2.1 **Print date:** 21-Sep-2015

### **16.7. Additional information**

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

-

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

-

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

## Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Trade name/designation:

CLEANING LIQUID, (ESL5) 100 ML

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture:

Inkjet Printing

Relevant identified uses:

**Sector of uses [SU]**

**SU 22:** Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Product Categories [PC]**

**PC 18:** Ink and toners

#### 1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

**Roland DG Benelux NV**

Bell-Telephonelaan 2G

B-2440 Geel

Belgium

**Telephone:** +32 14 57 59 11

**E-mail:** info@rolanddg.be

**Website:** www.rolanddg.be

**E-mail (competent person):** info@rolanddg.be

**E-mail (competent person):** info@rolanddg.be

#### 1.4. Emergency telephone number

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +33 1 40 05 48 48 (centre antipoison et de toxicovigilance, Paris, FR), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

24h: +32 70 245 245 (Centre Antipoisons Belge - Belgisch Antigifcentrum, BE), +31 30 274 88 88 (Nationaal Vergiftigingen Informatie Centrum, Utrecht, NL), +32 14 57 59 11 (Roland DG Benelux NV) (Only available during office hours.)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

According to EC directives or the corresponding national regulations the product does not have to be labelled.

**Hazard statements:** -

**Supplemental Hazard information (EU):** -

**Precautionary statements:** -

#### 2.3. Other hazards

**Adverse physicochemical effects:**

No special measures are necessary.

**Adverse human health effects and symptoms:**

No special measures are necessary.

**Adverse environmental effects:**

No special measures are necessary.

**Other adverse effects:**

No special measures are necessary.



Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

#### Description:

This mixture does not contain any substances presenting a health or environmental hazard within the meaning of the Dangerous Substances Directive 67/548/EEC or Regulation (EC) No 1272/2008, assigned a Community workplace exposure limit, classified as PBT/vPvB or included in the Candidate List.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Remove victim out of the danger area. Remove contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice. Do not leave affected person unattended.

#### Following inhalation:

Provide fresh air.

#### After eye contact:

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

#### After ingestion:

Rinse mouth. Let water be drunk in little sips (dilution effect).  
Get medical advice/attention if you feel unwell.

### 4.2. Most important symptoms and effects, both acute and delayed

No known symptoms to date.

### 4.3. Indication of any immediate medical attention and special treatment needed

No information available.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

Water spray jet, alcohol resistant foam, Extinguishing powder, Carbon dioxide (CO<sub>2</sub>)

#### Unsuitable extinguishing media:

Strong water jet

### 5.2. Special hazards arising from the substance or mixture

Combustible

#### Hazardous combustion products:

Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)

### 5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

### 5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

##### Personal precautions:

Avoid breathing dust/fume/gas/mist/vapours/spray.  
Remove persons to safety.

##### Protective equipment:

Wear protective gloves/protective clothing/eye protection/face protection.

#### 6.1.2. For emergency responders

##### Personal protection equipment:

Personal protection equipment: see section 8

### 6.2. Environmental precautions

Do not allow to enter into surface water or drains.

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

### 6.3. Methods and material for containment and cleaning up

**For containment:**

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

**For cleaning up:**

Water (with cleaning agent)

### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

### 6.5. Additional information

Use appropriate container to avoid environmental contamination.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

**Protective measures**

**Advices on safe handling:**

Wear personal protection equipment (refer to section 8).

**Fire prevent measures:**

Usual measures for fire prevention.

Keep away from sources of ignition. - No smoking.

Take precautionary measures against static discharges.

**Advices on general occupational hygiene**

When using do not eat, drink or smoke. Avoid contact with eyes and skin.

### 7.2. Conditions for safe storage, including any incompatibilities

**Technical measures and storage conditions:**

No special measures are necessary.

**Requirements for storage rooms and vessels:**

No special measures are necessary.

**Storage class:** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

### 7.3. Specific end use(s)

**Recommendation:**

Observe technical data sheet.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No data available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No data available

#### 8.2.2. Personal protection equipment

**Eye/face protection:**

Recommended eye protection articles: Eye glasses with side protection

**Skin protection:**

Hand protection is not required

**Respiratory protection:**

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

#### 8.2.3. Environmental exposure controls

See section 7. No additional measures necessary.

### 8.3. Additional information

Further information: see technical data sheet.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**Appearance**

**Physical state:** liquid

**Colour:** colourless

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

**Odour:** characteristic

**Odour threshold:** not applicable

**Safety relevant basis data**

parameter		at °C	Method	Remark
pH	<i>not applicable</i>			
Melting point/freezing point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	<i>not determined</i>			
Decomposition temperature (°C):	<i>not determined</i>			
Flash point	71 °C			
Evaporation rate	<i>not determined</i>			
Ignition temperature in °C	<i>not determined</i>			
Upper/lower flammability or explosive limits	> 1.3 - < 9.9 Vol-%			
Vapour pressure	<i>not determined</i>			
Vapour density	> 1			
Density	> 0.9 - < 1.1 g/cm <sup>3</sup>	20 °C		
Bulk density	<i>not determined</i>			
Water solubility (g/L)	miscible			
Partition coefficient: n-octanol/ water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	<i>not determined</i>			

**9.2. Other information**

No data available

**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

Combustible. This material is considered to be non-reactive under normal use conditions.

**10.2. Chemical stability**

The substance is chemically stable under recommended conditions of storage, use and temperature.

**10.3. Possibility of hazardous reactions**

No known hazardous reactions.

**10.4. Conditions to avoid**

Heat

**10.5. Incompatible materials**

Oxidising agent  
 Acid, concentrated

**10.6. Hazardous decomposition products**

No known hazardous decomposition products.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute oral toxicity:**

There are no data available on the preparation/mixture itself.

**Acute dermal toxicity:**

There are no data available on the preparation/mixture itself.

**Acute inhalation toxicity:**

There are no data available on the preparation/mixture itself.

**Skin corrosion/irritation:**

There are no data available on the preparation/mixture itself.

**Eye damage/irritation:**

There are no data available on the preparation/mixture itself.

**Respiratory or skin sensitisation:**

not sensitising.

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

**Germ cell mutagenicity:**

No experimental indications of in vivo mutagenicity exist.

**Carcinogenicity:**

No indication of human carcinogenicity.

**Reproductive toxicity:**

No indications of human reproductive toxicity exist.

**STOT-single exposure:**

There are no data available on the preparation/mixture itself.

**STOT-repeated exposure:**

There are no data available on the preparation/mixture itself.

**Aspiration hazard:**

not applicable

**SECTION 12: Ecological information**

**12.1. Toxicity**

**Aquatic toxicity:**

There are no data available on the preparation/mixture itself.

**12.2. Persistence and degradability**

**Biodegradation:**

There are no data available on the preparation/mixture itself.

**12.3. Bioaccumulative potential**

**Accumulation / Evaluation:**

There are no data available on the preparation/mixture itself.

**12.4. Mobility in soil**

There are no data available on the preparation/mixture itself.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Other adverse effects**

There are no data available on the preparation/mixture itself.

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

**13.1.1. Product/Packaging disposal**

Waste codes/waste designations according to EWC/AVV

**Waste code product:**

08 01 99	wastes from MFSU and removal of paint and varnish: Wastes not otherwise specified
----------	---

**Waste treatment options**

**Appropriate disposal / Product:**

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal.

**Appropriate disposal / Package:**

Completely emptied packages can be recycled.

**13.2. Additional information**

No data available

**SECTION 14: Transport information**

No dangerous good in sense of these transport regulations.

**14.1. UN-No.**

not relevant

**14.2. UN proper shipping name**

not relevant

**14.3. Transport hazard class(es)**

not relevant

Revision date: 02-Oct-2015 Version: 1 Print date: 02-Oct-2015

#### 14.4. Packing group

not relevant

#### 14.5. Environmental hazards

not relevant

#### 14.6. Special precautions for user

not relevant

#### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

not relevant

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

##### 15.1.1. EU legislation

No data available

##### 15.1.2. National regulations

##### [DE] National regulations

##### Water hazard class (WGK)

##### WGK:

nwg - nicht wassergefährdend

#### 15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

#### 15.3. Additional information

No data available

### SECTION 16: Other information

#### 16.1. Indication of changes

No data available

#### 16.2. Abbreviations and acronyms

See overview table at [www.euphrac.eu](http://www.euphrac.eu)

#### 16.3. Key literature references and sources for data

No data available

#### 16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

##### Classification according to Regulation (EC) No 1272/2008 [CLP]:

This mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

#### 16.5. Relevant R-, H- and EUH-phrases (Number and full text)

No data available

#### 16.6. Training advice

No data available

**Revision date:** 02-Oct-2015 **Version:** 1 **Print date:** 02-Oct-2015

### **16.7. Additional information**

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

This Safety Data Sheet was drawn up by TÜV SÜD Industrie Service GmbH (see below), based on data from the supplier, who is named in section 1 and who is responsible for this document.

TÜV SÜD Industrie Service GmbH  
Department Environmental Service  
Westendstraße 199  
80686 Munich - Germany

Importer/Only Representative :  
Roland DG Benelux NV

Manufacturer:  
Roland DG Corporation  
1-6-4 Shinmiyakoda, Kita-ku, Hamamatsu-shi,  
Shizuoka-ken, 431-2103  
JAPAN  
Telefon: + 81-53-484-1224  
Telefax: + 81-53-484-1226